

REMARKS

Original claims 2-9, 11-14, 16-20, and 22-25 are currently pending in the present patent application, with claims 1, 10, 15, and 21 having been cancelled through the above claim amendments.

In an Office Action mailed on February 17, 2006, the Examiner rejected claims 1-2, 10-11, and 15-17 under 35 U.S.C. § 103(a) as being unpatentable over a paper to Praveen K. Murthy *et al.* entitled SYSTEM CANVAS: A NEW DESIGN ENVIRONMENT FOR EMBEDDED DSP AND TELECOMMUNICATION SYSTEMS ("Murthy" herein, although note that the Examiner referred to this reference as Praveen in the Office Action). Claims 3-4, 8-9, 12-13, and 18-20 were rejected under Section 103(a) over Murthy in view of U.S. Patent No. 6,642,942 to Crook ("Crook"). The Examiner rejected claims 5, 14, and 21-25 as being unpatentable over Murthy and Crook and further in view U.S. Patent No. 5,455,853 to Cebulka *et al.* ("Cebulka").

Claims 1, 10, 15, and 21 have been cancelled, rendering the rejections of these claims moot. Claim 5 was rejected as being unpatentable over Murthy and Crook and further in view of Cebulka. Claim 5 has been rewritten in independent form and recites, in part, displaying a working folder tabs object that displays in one mode service independent building blocks, displays in a second mode icons representing service graphs, displays in a third mode icons representing service data tables, and displaying in a fourth mode icons representing message sets and messages. For example, in paragraphs 54 and 55 of the present application, a graphical design window 1200 displayed by a graphical interface program 206 of Figure 2 is shown for generating a service graph 207 according to one embodiment of the present invention. The graphical design window 1200 includes a canvas portion or object 1202 in which the developer places SIBs and subroutines and interconnects these icons to form the service graph 207.

The graphical design window 1200 further includes a working folder tabs object 1204 positioned to the left of the canvas object 1202. The working folder tabs object 1204 includes an SIB button or pane 1206, a services pane 1208, a service data tables pane 1210, and a messages pane 1212. These panes 1206-1212 determine of mode of operation of the window 1200, with the selected mode determining the content displayed by the working folder tabs object. When the SIB

pane 1206 is selected by clicking on the pane, the working folder tabs object 1204 displays the currently available SIB libraries and the SIBs in each library, as shown in FIG. 12. When the services pane 1208 is selected, the working folder tabs object 1204 displays icons representing the service graphs 207 and icons representing the subroutine graphs 800. The developer may then select a graph 207 or 800 to open the graph, meaning the graph is displayed in the canvas object 1202 to be viewed and/or modified by the developer. Selecting the service data tables pane 1210 causes the working folder tabs object 1204 to display any service data tables 212 currently available for use by the developer. Finally, when the messages pane 1212 is selected the working folder tabs object 1204 displays icons representing the message sets 214 (FIG. 6) currently available for use as well as the messages MSG in each message set.

The combination of Murthy and Crook and further in view U.S. Patent No. 5,455,853 to Cebulka *et al.* ("Cebulka") neither discloses nor suggests the combination of elements recited in claim 5. None of the references discloses displaying a working folder tabs object that operates in four different modes to display the recited objects, namely SIBs in the first mode, service graph icons in the second mode, service data table icons in the third mode, and message sets and messages icons in the fourth mode. As the Examiner indicates on page 15 of the Office Action, neither Murthy nor Crook discloses displaying icons representing service data tables and message sets. Cebulka provides is directed to templates to reduce the time required to generate related service logic, and is not concerned with displaying service data table icons or message/message set icons to be utilized in generating a service graph.

For these reasons, the combination of elements recited in independent claim 5 is allowable. Dependent claims 2-4, 6-8, and 9 are allowable for at least the same reasons as claim 5 and due to the additional limitations added by each of these claims. Claims 14, 20, and 25 have also been rewritten in independent form and are allowable for reasons similar to those discussed above for claim 5. Dependent claims 11-13, 16-19, and 22-24 are allowable for at least the same reasons as the corresponding independent claim and due to the additional limitations added by each of these claims.

In addition, with regarding to dependent claim 7, this claim recites the method of claim 5 in which displaying icons representing service graphs in a second mode further comprises displaying icons representing subroutine graphs. As discussed in the specification in paragraphs 45 and 46 with reference to Figure 8, for example, an embodiment of the graphical interface program 206 creates subroutines in much the same way as creating the service graph 700 of Figure 7 for an overall service process. To create a subroutine, the graphical interface program 206 is used to create a subroutine graph, an example of which is shown as a subroutine graph 800 in FIG. 8. The SIBs contained in the subroutine graph 800 can be selected and inserted as previously described for the service graph 207 of FIG. 4, and the graphical interface program 206 is also used to define a name, inputs, outputs, and events for the subroutine graph 800. The subroutine graph 800 represents a service logic sub process that is then called by the service graph 207 or 700.

Once a subroutine graph 800 is defined using the graphical interface program 206, the program displays a call subroutine SIB or icon that allows a developer to create instances of the subroutine where desired in service graphs 207. As previously mentioned, an example of a call subroutine SIB is shown for the subroutine 406 of FIG. 4. Instances of the subroutine may thus be created, for example, by clicking on the corresponding icon displayed on a working tab panel displayed by the program 206 and then dragging the icon to the canvas displayed by the program. In one embodiment of the program 202, the graphical interface program 206 allows the subroutine graph 800 to be called from multiple service graphs 207 and also to be called from other subroutine graphs.

In addition to be allowable for the same reasons as claim 5, claim 7 is allowable because none of the references Murthy, Crook or Cebulka discloses or suggests a program that generates subroutine graphs which may then be reused in multiple service graphs. Cebulka discloses creating templates which may then be stored in a database and thereafter retrieved and customized to create service processes. This is in contrast to the utilization of subroutine graphs corresponding to a service logic sub process which may then be reused within given service logic or among different instances of service logic. Neither is claim 7 obvious in view of the combination of Murthy, Crook, and Cebulka since Cebulka is directed to a the problem of eliminating the duplication of effort in creating new service logic. Cebulka

creates modifiable templates for thereafter creating instances of similar but not identical service logic. In contrast, claim 7 recites using subroutine graphs that allow the reuse of service sub logic both within given service logic or among different instances of service logic. Thus, the use of subroutines provides flexibility that the use of a template as in Cebulka does not provide. For these additional reasons, the combination of elements recited in dependent claim 7 is allowable. These same comments apply to claim 25.

The present patent application is in condition for allowance. Favorable consideration and a Notice of Allowance are respectfully requested. The Examiner is requested to contact the undersigned at the number listed below for a telephone interview if, upon consideration of this amendment, the Examiner determines any pending claims are not in condition for allowance.

Respectfully submitted,

GRAYBEAL JACKSON HALEY LLP

A handwritten signature in black ink, reading "Paul F. Rusyn". The signature is stylized with large, flowing loops and a prominent "F".

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